

On the American Founders' Defense of Liberal Education in a Republic

Eugene F. Miller

An important strand of the republican tradition warns that liberal education harms republics by promoting aristocracy, breeding an idle and skeptical class of philosophers and undermining the civic virtues on which republics depend. The American Founding generation, in its writings on education, rejected this warning and maintained instead that the open cultivation and wide dissemination of liberal learning is favorable to republican government, if not essential to its very existence. The aristocratic tendencies of liberal education would be mitigated by the diffusion of knowledge. Philosophy would show its usefulness by increasing man's power over nature and multiplying the conveniences of life. The republican virtues would be strengthened by the elucidation of their rational ground. These arguments, though perhaps questionable from a theoretical standpoint, provide the model for a speech that will justify liberal education before the citizens of a republic. Yet the reconciliation of liberal education and republicanism requires a second speech—one that justifies republicanism to the friends of liberal education—and here the American writings give little guidance.

John Stuart Mill once observed of education that “of all many-sided subjects, it is the one which has the greatest number of sides.”¹ To put Mill's point a bit differently, we may say that an adequate treatment of the subject of education would force us to address every fundamental question of political philosophy. The complexity of this subject arises at least in part from the fact that education is many things and not just one thing. We can distinguish, among other kinds, liberal education, technical education, civic education, scientific education, and religious education. Moreover, each of these kinds of education has its own plurality due to the complexity of human nature and of the types of community in which we dwell. A proper understanding of education would require us to acknowledge this irreducible variety and to figure out the relation of the different kinds of education to each other. My essay will concern itself with only a part of this broad task. It will explore the relationship of liberal education to civic education or, more precisely, to that kind of civic education which is suitable to a republican or democratic regime.

The fundamental question which our topic requires us to consider is this: Is liberal education compatible with republicanism? Can it be harmonized with that civic education in morality and patriotism that republics require? Granted that liberal education is good and that republicanism is also good, does it follow that

these two things are good for each other? Herbert Storing once argued provocatively that "the common man is bad for liberal education and . . . liberal education is bad for the common man."² But does it not follow—if republics are *of*, *by* and *for* the common man—that liberal education and republicanism are bad for each other?

This question is not merely a speculative one. There is a strand of the republican tradition, going back to such ancients as the elder Cato and including such moderns as Rousseau, which holds that the open cultivation and wide dissemination of liberal learning is bad for republics; and such writers as Tocqueville and Nietzsche, who saw the consequences of democracy's victory in America and Europe, tell us that republican or democratic society is bad for liberal education. We tend to overlook this fundamental question, because it is a received opinion with us that liberal education and republicanism are good for each other. Yet like most received opinions, this one had to be established by argumentation at a particular point in time in the face of considerable doubt and opposition. The ground for it had been largely prepared by the time the American experiment in republicanism got under way. Nevertheless, it was still necessary for writers of the Founding generation to show that the citizens of a republic will benefit from a liberal education. They could not take it for granted, as we do, that liberal education is at home in republics. The rather large body of American writings on education from the Founding period are thus a valuable resource for understanding the relationship of liberal education and republicanism.

I propose to see what we can learn from these American writings when we view them as part of a debate over the place of liberal education in a republic. We shall find that these writings contain at least an implicit answer to arguments against liberal education which had been put forth by a more austere republican tradition. At the conclusion of this essay, I will weigh this influential American defense of liberal education in terms of its cogency and its completeness.

LIBERAL EDUCATION AS DANGEROUS TO REPUBLICS

As avid readers of the classics, the American Founders would have been familiar with the example of Marcus Cato, or Cato the Censor, that paragon of republican virtue who was honored by

his fellow citizens with a statue in the temple of the goddess of health for reclaiming the Roman Republic when it was declining and sinking down into vice. In 155 B.C., when Cato was nearing the age of eighty, an embassy came to Rome from Athens to appeal the fine imposed on the city for the destruction of Oropus. The embassy consisted of the heads of the three main schools of philosophy: Carneades the Academic, Diogenes the Stoic, and Critolaus the Peripatetic. The three Athenians proceeded to display their dialectical and persuasive skills in speeches to large and admiring audiences, and their opportunities to speak were multiplied when the Roman Senate delayed its decision on their appeal. The young men of Rome were attracted especially to Carneades, the greatest of the three, who on one occasion made an eloquent speech in praise of justice and then on the very next day refuted his own arguments.³ According to Plutarch, word soon spread that this Greek visitor "had impressed so strange a love upon the young men, that quitting all their pleasures and pastimes, they ran mad, as it were, after philosophy." The Romans in general, far from being displeased, were glad to see the youth embrace the Greek literature and frequent the company of learned men. Cato, however, feared from the outset that this passion for words would lead the youth to "prefer the glory of speaking well before that of arms and doing well." Resolving to have all philosophers cleared out of the city, Cato came before the Senate and urged it to decide the Athenians' petition in all haste, "that so they might go home again to their own schools, and declaim to the Greek children, and leave the Roman youth to be obedient, as hitherto, to their own laws and governors." Some of the things that Cato would say about Greek studies and literature indicate the reasons for his action. He expressed an admiration for Socrates' ability to live a temperate and contented life with a shrewish wife and half-witted children, but he nonetheless called him "a prating, seditious fellow, who did his best to tyrannise over his country, to undermine the ancient customs, and to entice and withdraw the citizens to opinions contrary to the laws." He said of the students of Isocrates that they "grew old men before they had done learning with him, as if they were to use their art and plead causes in the court of Minos in the next world." To frighten his son away from Greek things, Cato would declare in oracular fashion "that the Romans would certainly be destroyed when they began once to be infected with Greek literature."⁴

Many Americans of the Founding period would have been

familiar also with Rousseau's impassioned warning that the popularization of the arts and sciences will undermine those virtues which are essential to republican government. Cato is praised by Rousseau for "inveighing against those cunning and subtle Greeks who seduced the virtues and enervated the courage of his fellow citizens."⁵ When despite Cato's warnings, Rome was filled with philosophers and orators and with the sciences, arts, and dialectic of Athens,

military discipline was neglected, agriculture was scorned, sects were embraced and the fatherland forgotten. The sacred names of liberty, disinterestedness, obedience to laws were replaced by the names of Epicurus, Zeno, Arcesilas. "Since learned men have begun to appear among us," said their own philosophers, "good men have disappeared." Until then, the Romans had been content to practice virtue; all was lost when they began to study it.⁶

Rome, in the time of its ignorance and poverty, had been distinguished by the virtues of courage and moderation, by a love of liberty, and by patriotism and a fierce independence; but with enlightenment and luxury, it became the scene of indecency, idleness, effeminacy, and crime. Republican liberty gave way inevitably to the yoke of the Caesars. Rousseau argues more generally that morals have decayed and liberty has been lost wherever the arts and sciences have been developed and disseminated. The arts and sciences owe their birth to our vices, and they nourish our vices in turn. They produce skeptics who "smile disdainfully at the old-fashioned words of fatherland and religion, and devote their talents and philosophy to destroying and debasing all that is sacred among men."⁷ They engender a desire for luxury and with it avarice, dissipation, a corruption of taste, a decay of the military virtues, and extremes of inequality. The arts and sciences may serve a purpose in despotic states, by making men "happy slaves" and spreading "garlands of flowers over the iron chains with which men are burdened,"⁸ but their open cultivation is fatal to republics.

As we see, the assumption that it is good for republics to educate their citizens widely in the liberal arts and sciences has not been shared by everyone. Cato's view of the matter was perhaps the predominant one in ancient times, and a version of it was stated powerfully by Rousseau only a few decades before the American Founding. Taking into account the arguments of Cato and Rousseau, but looking at the matter more comprehensively,

we can identify the following reasons for thinking that republics will suffer from the promotion of liberal education.

A. Liberal education is an aristocratic education. It can truly benefit only the few who have the leisure and the ability to pursue it deeply. A liberal education enables these few to acquire the noble habits and tastes that we call the moral virtues and to develop the ability to act wisely in practical affairs. Yet since the many—the common people or “the vulgar”—lack the time, or the ability, or else the interest in self-cultivation that a liberal education requires, the inevitable result of liberal education is the promotion of inequality. As Rousseau pointed out, the inequalities of wealth and knowledge that are found in enlightened societies are far more extreme than those inequalities that are found in nature. We can expect that those few who become beautiful and good through education—the gentlemen—will be proud and ambitious. They will not feel at home in a republic, where it is necessary for them to submit to the rule of the majority of citizens who are free but uneducated. Their sense of their own merit as well as their fear of the envy of the common people will make them want to rule over the many and not be ruled by them. The common people, in turn, will resent the claims of the gentlemen to the effect that political privileges should accompany superiorities of wealth and virtue. The inequalities that liberal education has produced will thus lead to factional strife. The gentlemen will find themselves constantly at odds with the policies of a republican regime. They will be disdainful of its tastes or tone. Since the gentlemen and their way of life will not be secure unless they rule the city, they will be compelled to try to subvert the republican form and to establish an aristocratic regime. A republic that gives encouragement to liberal education thus runs the risk of producing its own gravediggers.

B. The gentlemen are one product of liberal education, but they are by no means the worst product, insofar as a republic is concerned. The gentlemen at least have their feet on the ground and can be admired for their noble deeds and practical abilities. The gentlemen know when to put liberal studies aside and to get on with the business of life. There is another group, however, which loves the pursuit of knowledge so deeply that it can never bring its studies to a conclusion. The philosophers, as Cato pointed out, grow old men before they have done learning with their teachers, as if they intended to find a use for their knowledge in the next life. There is something ridiculous about philosophers,

but there is also something dangerous about them, from a republic's viewpoint. First, philosophy draws the minds of young people away from the things that citizens of a republic must take seriously. Thus Cato feared that the passion for philosophic speeches would lead the youth to prefer the glory of speaking well before that of arms and doing well. Similarly, Rousseau notes that military discipline was neglected and agriculture scorned by the Roman youth when they began to keep company with philosophers and orators. Second, philosophical questioning causes citizens to doubt those fundamental principles that republican governments rest upon. Whereas the gentlemen endanger republican regimes by promoting an aristocratic regime, the philosophers endanger all regimes by treating their sustaining truths as mere opinions which must be subjected to perpetual doubt. The regimes demand respect because of the justice of their distribution of offices or their divine origin and sanction, but philosophers question whether justice and the gods are among the beings that are by nature and are truly knowable. In particular, they question the republican claim that it is just and sacred for each free man to have an equal right to share in ruling and lawmaking. Thus Cato could accuse Socrates of undermining the ancient customs of Athens and enticing the citizens to hold opinions contrary to the laws, and he could expel the philosophers from Rome so that the youth could continue to be obedient to their own laws and governors. Rousseau could deplore a philosophical skepticism that smiles disdainfully at the old-fashioned words of fatherland and religion and destroys or debases all that is sacred among men.

C. Liberal education, whether its products be gentlemen or philosophers, is at odds with that civic education which is appropriate to a republic, or is at least superfluous to it. The virtues which sustain republics are neither the proud and heroic virtues nor the speculative virtues. They are the "quiet, unpretending virtues"⁹ that enable men and women to perform their everyday duties, to care about the commonwealth and judge its affairs disinterestedly, to respect the equal rights of their fellow citizens, and, when necessary, to make sacrifices for the common good. The republican virtues are ones which are in reach of most people, such as thrift, temperance, piety, truthfulness, justice, love of country, industry, modesty, and steadfastness. By holding forth a vision of human excellence that is high but rarely attainable, a liberal education tempts the young to desert that simplicity of life

and manners and that commonplace view of life which republics thrive upon.

A suspicion of liberal education, openly cultivated, was one important strand of the complex republican tradition which the American Founding generation inherited, although it was counterbalanced by other strands which argued for the benefits of enlightenment and of the progress of the arts and sciences. The Founders did not hesitate to take the side of liberal education. They saw it as something wholly beneficial to republican society. Their belief in the ameliorating power of education was a large part of the reason for their confidence that their own experiment in republicanism would succeed where earlier ones had failed. While they could agree with Cato and Rousseau that a republic must make provision for civic education, they did not think that civic education and liberal education were at odds. Their view was that liberal education is fully compatible with republican civic education. We must turn now to this American view and see how it replies to those who had doubted the civic benefits of liberal education.

THE FOUNDERS' DEFENSE OF LIBERAL EDUCATION

In concentrating on the Founders' writings on the structure of government, political scientists have tended to overlook the fact that the Founding period was a time of keen interest in matters of education. This interest proceeded from a widely shared conviction that innovations in the forms and structures of government could not be durable without attention also to the proper education of the citizenry. In January of 1787, a few months before the opening of the Federal Convention in Philadelphia, Dr. Benjamin Rush, one of that city's most prominent residents, published in the *American Museum* an "Address to the American People," which begins as follows:

There is nothing more common than to confound the terms of *American Revolution* with those of the *late American War*. The American war is over, but this is far from being the case with the American Revolution. On the contrary, nothing but the great drama is closed. It remains yet to establish and perfect our new forms of government, and to prepare the principles, morals, and manners of our citizens for these forms of government after they are established and brought to perfection.¹⁰

As Rush suggests, the pressing task for Americans at this time was to devise new institutions of government and to put them into operation. Yet as Rush and many others recognized, these new institutions would ultimately be ineffectual unless the principles, manners, and morals of the citizens were brought into conformity with these institutions through a system of education. Noah Webster explains in a 1790 essay that laws alone "can only check the public effects of vicious principles but can never reach the principles themselves." The education of youth should thus be the first care of a legislature, for "education, in a great measure, forms the moral characters of men, and morals are the basis of government."¹¹ The next year, Robert Coram instructed Americans that the incorporation of education with government is *"the rock on which you must build your political salvation."*¹²

In the decades following the Revolution, Jefferson and others led the effort to establish public schools and universities in the various states. The Congress of the United States, acting under the Articles of Confederation, provided in the Land Ordinance of 1785 that every township in the Northwest Territory should have a lot reserved for the maintenance of public schools, and in the Northwest Ordinance of 1787 it declared: "Religion, morality, and knowledge, being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." At the Federal Convention, Madison and Pinckney moved to insert in the list of powers vested in Congress a power "to establish an University"; and while the proposal was narrowly defeated, this was presumably because most delegates felt that the provision was unnecessary, since Congress could accomplish the same object under its exclusive power to legislate for the seat of government.¹³ George Washington then became the champion of a national university, even to the point of calling for its establishment in messages to Congress, choosing a site for it in the Federal City, and providing in his will that fifty shares of stock in the Potomac Company, then valued at some \$25,000, be given toward its endowment.

These efforts on behalf of education produced a considerable body of writing, much of it directly relevant to the problem of liberal education and republicanism. I shall proceed now to examine the case that can be found there for thinking that liberal education is something beneficial to a republic. As we shall see, these writings contain an answer to the austere republicanism of Cato and Rousseau, which doubts that the open cultivation and

dissemination of liberal learning is a good thing. For convenience, I shall take up the arguments for distrusting liberal education in the order in which they were stated in the previous section.

THE CHARGE THAT LIBERAL EDUCATION BREEDS ARISTOCRACY, DISSATISFACTION WITH REPUBLICAN WAYS, AND FACTIONAL STRIFE BETWEEN THE LEARNED BUT PROUD MINORITY AND THE UNLEARNED, RESENTFUL MAJORITY.

According to the American writers, this charge has merit only where liberal education is restricted to a few, or at least limited to those few who can pay for it as distinguished from those who deserve it. Liberal education can be made compatible with republicanism, however, by the widest possible diffusion of knowledge. As Rush observes, "a free government can only exist in an equal diffusion of literature."¹⁴ The idea is that if knowledge is widely and, insofar as possible, equally diffused, the few can no longer use it to defraud the people or to promote their claim to exclusive power. By the diffusion of learning, the people gain what they need to know in order to govern themselves, and they come to respect those who excel in the liberal arts and sciences. This idea may seem on its face to be a simple one, but it embodies some assumptions that must be considered carefully.

The American writers' case for the diffusion of knowledge rests, first of all, on a view of the alternative forms of government and the modes of education appropriate to these forms. Webster draws from Montesquieu in arguing that "the laws of education ought to be relative to the principles of the government."¹⁵ Whereas despotic governments give the people little or no information and monarchies apportion it according to a citizen's rank, republics must diffuse information broadly to every class of people. Most American writers avoid any fine distinction among the nonrepublican forms of government and simply ascribe to all of them the policy of promoting ignorance among the people and resisting enlightenment. Thus Rush observes that "where learning is confined to a *few* people, we always find monarchy, aristocracy, and slavery."¹⁶ For Simeon Doggett, it is an "eternal truth" that "the mode of government in any nation will always be moulded by the state of education. The throne of tyranny is founded on ignorance. Literature and liberty go hand in hand."¹⁷ It follows from these arguments that liberal learning is at home in republics and that the spread of enlightenment is fatal to the nonrepublican forms. As Jefferson observes in his "Bill for the

More General Diffusion of Knowledge" (1778-79), the most effectual means of preventing tyrannical government is "to illuminate, as far as practicable, the minds of the people at large."¹⁸

By arguing that the republican form of government requires, by its very nature, a diffusion of liberal learning, the American writers were, of course, rejecting the republicanism of Cato and Rousseau. If pressed to defend their own view of the nature of republican government, the Americans would likely have made one or more of the following points. First, a republic from which liberal learning is excluded would perforce belong to a barbaric stage of human development, for as Rush notes, "without learning, men become savages or barbarians."¹⁹ Jefferson likens the benefits of a liberal education to those of grafting a new tree on wild and uncultivated stock. It "engrafts a new man on the native stock, and improves what in his nature was vicious and perverse into qualities of virtue and social worth."²⁰ Second, the citizens of an unenlightened republic, even if "virtuous" by some barbaric standard, could not hope to be happy, since "the happiness of an individual will greatly depend upon the general diffusion of knowledge and a capacity to think and speak correctly."²¹ Third, the uninformed citizens of a rude republic, though perhaps able to enjoy freedom for a time, could easily be misled into surrendering it. Samuel Harrison Smith asks his fellow Americans:

Is it a question with any man whether our liberties are secure? Let him know that they depend upon the knowledge of the people and that this knowledge depends upon a comprehensive and energetic system of education. It is true that some nations have been free without possessing a large portion of illumination, but their freedom has been precarious and accidental, and it has fallen as a rose.²²

Finally, the republics of the ancient world were constrained to limit the possibilities for liberal education by circumstances which no longer apply in the modern world. Since the ancient republics were small and were surrounded by hostile neighbors, they were forced to emphasize military training and the martial virtues in the instruction of the youth. As Knox observes,

their plans of education were rather military schools preparing them for camp, either for self-defense or for butchering the human species, than seminaries suited to literary acquisition, the conduct of life, or the improvement of the human mind.²³

Moreover, the ancient republics lacked the means that the invention of printing has made available for diffusing literary knowledge to everyone.²⁴

The American writers' case for the diffusion of knowledge rests not only on an assumption about the forms of government and the modes of education appropriate to them, but also on an assumption about human nature. Knowledge cannot be diffused unless the people in general have the intellectual capacity to receive it; and this seems to require that human beings must be roughly equal in the powers of the mind, or at least equal up to a respectable level of competency. Some American writers, such as Robert Coram, did insist strongly on the natural equality of the mind and attributed the differences in human intelligence to such artificial causes as climate, habit and education. "If we would give ourselves time to consider," writes Coram, "we would find an idea of natural intellectual equality everywhere predominant but more particularly in free countries."²⁵ While Coram tried to defend the natural equality of the mind against every shred of contrary evidence, most American writers were willing to accommodate differences in intellectual ability in their plans for an enlightened republic. They did insist, however, that people in general have a large capacity for enlightenment, sufficient at least for purposes of republican citizenship, and that education should be made available according to ability and not limited to the wealthy few. In their view, the principle of the diffusion of knowledge was consistent with the fact that this knowledge will in the main be produced by a few men of natural genius, while the rest will largely be recipients of it.

Jefferson's proposals for education assume that while men are equal with respect to their natural rights, they are nonetheless unequal in their intellectual abilities. He observes in his "Bill for the More General Diffusion of Knowledge" that to illuminate the minds of the people is the most effectual means of safeguarding their natural rights against the tendency of all political power to become tyrannical. The people should, in particular, have a knowledge of those historical facts that will enable them to recognize ambition under all its shapes and to be prompt to exert their natural powers to defeat its purposes. A higher level of education is necessary, however, for those who will be chiefly responsible for forming and administering the laws. It is expedient for promoting the public happiness that

those persons, whom nature hath endowed with genius and virtue, should be rendered by liberal education worthy to receive, and able to guard the sacred deposit of the rights and liberties of their fellow citizens, and that they should be called to that charge without regard to wealth, birth, or other accidental condition or circumstance.²⁶

This hierarchical structure is preserved and refined in the systems of education that Jefferson proposed later. In a well-known letter to Peter Carr (7 September 1814), Jefferson divides the mass of citizens into two classes, the laboring and the learned. Both classes will receive a free elementary education in reading, writing, basic arithmetic, and geography, but after this they separate. Those destined for labor will enter into agriculture or into apprenticeships in the arts of their choice, while those destined to the pursuit of science will proceed to the second level of education, the General Schools. Here all the branches of useful science are taught; and they are arranged for convenience into three departments: language, mathematics and philosophy. While all youth of the learned class receive an education in the General Schools, this class is divided, for purposes of further education, into two sections:

1, Those who are destined for learned professions, as a means of livelihood; and 2, The wealthy, who, possessing independent fortunes, may aspire to share in conducting the affairs of the nation, or to live with usefulness and respect in the private ranks of life.²⁷

At the conclusion of their General School education,

the students separate; the wealthy retiring, with sufficient stock of knowledge, to improve themselves to any degree which their views may lead them, and the professional section to the professional schools, constituting the third grade of education, and teaching the particular sciences which the individuals of this section mean to pursue, with more minuteness and detail than was within the scope of the general schools for the second grade of instruction. In these professional schools each science is to be taught in the highest degree it has yet attained.²⁸

It is noteworthy that the professional schools will provide continuing adult education for practitioners who desire instruction in the particular sciences; and there will even be a school of technical philosophy to provide evening courses to those artisans of the laboring class who can benefit from a knowledge of the rudiments of science. Jefferson's system does not, of course, provide a true

liberal education to everyone, but liberal learning is certainly the core of all higher education, and its truths are diffused widely to people of the laboring class.

THE CHARGE THAT LIBERAL EDUCATION TURNS MEN TOWARDS PHILOSOPHY AND THEREBY INTRODUCES A VICIOUS AND ALTOGETHER USELESS ELEMENT INTO A REPUBLIC.

This very old charge against philosophy was emphatically rejected by the American writers on education, who praised philosophy in the highest terms. Philosophers are "the excellent ones of the earth," Knox suggests.²⁹ All agreed that the education of the youth should be in their hands. In striking contrast to Cato's distrust of Socrates and his followers, Doggett exclaims: "Raptures of enthusiasm fill our hearts in anticipating the golden era when Socrateses shall again be schoolmasters."³⁰ The American writers' defense of philosophy rested above all on a claim for its utility. They insisted that philosophers, far from being useless, are in fact the ones who are of greatest use to society. Furthermore, philosophers are good and virtuous men and not vicious, as their enemies have charged. Since philosophers are both useful and virtuous to the highest degree, it is proper that the most able citizens of a republic should receive a philosophic education.

In order to understand the attitude of these educational writers towards philosophy, it is important to know that philosophy had long enjoyed a good name in America. In 1743, Benjamin Franklin had proposed the establishment of the American Philosophical Society, which would be centered in Philadelphia and would promote useful knowledge among the British plantations.³¹ In his proposal, Franklin observes that with the first drudgery of settling the new colonies now pretty much over, there are many in every province whose circumstances afford them the leisure to cultivate the finer arts and improve the common stock of knowledge. To such of these who are "men of speculation," observations must sometimes occur which, if examined, pursued, and improved, might produce discoveries advantageous to others or even beneficial to mankind in general. Yet since such persons are widely separated and seldom know or converse with each other, their observations, which remain uncommunicated, "die with the discoverers, and are lost to mankind." To remedy this inconvenience, Franklin proposes that

"one society be formed of *virtuosi* or ingenious men residing in the several colonies," who would maintain a constant correspondence with each other through the society's center at Philadelphia. The Philadelphia members, whose number would always include a physician, a botanist, a mathematician, a chemist, a mechanician, a geographer, and a general natural philosopher, would meet at least once a month to communicate to each other their own observations and experiments, to consider communications from distant members, and to disperse copies or abstracts of all valuable communications to its distant members. The subjects of correspondence, which Franklin lists in detail, include discoveries about all natural things, whether plant, animal, or mineral, with their uses and improvements, as well as innovations that men have made in every art, trade, and manufacture—in sum, "all philosophical experiments that let light into the nature of things, tend to increase the power of man over matter and multiply the conveniences or pleasures of life."

Franklin's proposal came to fruition in 1769 with the formation, from the merger of two smaller societies, of "The American Philosophical Society, held at Philadelphia, for promoting useful Knowledge." Franklin, the first president of the society, was succeeded in 1791 by David Rittenhouse, the astronomer and inventor, and in 1797 by Thomas Jefferson. Its members included not only the leading men of speculative and practical science in America, but also such eminent American statesmen as George Washington and such distinguished foreign scientists as Lavoisier. As Daniel Boorstin points out, the society had established itself by the time of the Revolution as "the main institution through which Americans collaborated to comprehend and master their environment, and the focus, not merely of 'scientific' activity, but of intellectual life on the continent."³²

Several of the writers whom we have been discussing—Rush, Jefferson, and Samuel Harrison Smith—were members of the American Philosophical Society, and the others were under its strong influence. It is not surprising, therefore, that the understanding of the nature of philosophy which is contained in their writings is very much the same as the one propagated by the society. The terms *philosophy* and *science* are used, for the most part, synonymously by the educational writers, so that *philosophers* would have enjoyed with them the respect that we accord today to *scientists*. All that we today include under the natural sciences was then called natural or physical philosophy; and all that pertains to

the study of man, including ethics, politics, and economics, was then called moral philosophy. Rational inquiry about the Deity, once the first or highest part of philosophy, would have likely been called natural religion or rational (as opposed to sectarian) theology by the American writers, although they used the term *philosophy* very broadly on occasion to encompass any sort of speculative inquiry. *Philosophy*, as then used, included not only speculative pursuits, but also what we today would call applied science or technology. Thus Franklin writes essays for the *Transactions* of the American Philosophical Society on the causes and cure of smoky chimneys and on a new stove which consumes all its smoke, and Jefferson recommends a school of "technical philosophy" for the University of Virginia to instruct mariners, carpenters, machinists, metallurgists, distillers, soapmakers, and such in as much natural science as they need to "pursue their art understandingly."³³

Our writers on education agreed fully with the claims of the American Philosophical Society for the usefulness of philosophy. Some did indeed suggest that the improvement of the mind and the acquisition of "ornamental" knowledge are valuable in themselves, but the emphasis throughout their writings was on philosophy's usefulness to the life of man. All shared Franklin's belief that philosophy serves to "increase the power of man over matter and multiply the conveniences or pleasures of life." The usefulness of philosophy was a fact so evident to them that they seldom bothered to justify it. We do find in Samuel Harrison Smith's important essay, however, an interesting defense of philosophy against the charge that half the knowledge of which it boasts "withdraws the mind from useful employment by occupying it with considerations of idle curiosity and unproductive speculation."³⁴ Smith is unwilling to grant that philosophy is even half useless. The charge, if true, would discredit philosophy, for "he whose years revolve in acquiring, without using, learning, is even more selfish and criminal than the miser."³⁵ Smith invites us to look into the source of the charge. It has "generally arisen from the indolence and envy of ignorance or sprung from the malice of blasted pretensions."³⁶ Moreover, it is disclaimed by literature and science. Every science has practical importance, and "discoveries which at first promised only cold speculative truths have produced the greatest practical good."³⁷

Let it be granted that philosophy or science provides us with useful knowledge. Might it not still be the case, as some have

charged, that philosophers themselves are vicious men, who are disposed to use their knowledge in ways that are harmful to republics instead of useful to them? Doggett opens the door to this possibility by granting that truth is not necessarily connected with virtue. Undoubtedly there is a strong probability that the morality will be improved by informing the understanding.

Yet it must be confessed that this connection is not an inseparable one, since we have the unhappiness sometimes to see gentlemen of the first learning and abilities the lowest sunk in depravity and vice. We have the unhappiness sometimes to see souls widely expanded in knowledge awfully maculated with the dark shades of vice: angels in understanding, devils in conduct.³⁸

For Doggett, who was a Unitarian minister, this problem must be dealt with by providing moral as well as literary instruction. Youth must be educated not only "in arts and sciences, but also, as saith the Apostle, *in the nurture and admonition of the Lord.*"³⁹

Smith explores the connection of truth and virtue at great length, but he comes to a different solution to the problem than the one Doggett offers. Smith argues even more strongly than Doggett that the connection of wisdom and virtue is a necessary one, such that the purity of virtue is best secured through the strength of wisdom. To the objection that many wise men can be found who are also vicious, Smith replies that this occurs only because the wise are provoked by the envy and oppression of the unwise. In the face of unceasing calumny and detraction, the wise seek vengeance by deceptive and vicious means, so that virtue is at last exiled from their hearts. For Smith, the solution to the problem of "angels in understanding, devils in conduct" is not so much moral instruction for the few as it is enlightenment for the many. Once a majority overcomes its suspicion of the wise and enlists itself on the side of the arts and sciences, wisdom will show its natural tendency to produce virtue and happiness.⁴⁰

THE CHARGE THAT LIBERAL EDUCATION, BY PROMOTING SKEPTICISM, A TASTE FOR LUXURIES, AND GRANDIOSE ASPIRATIONS, UNDERMINES THE SIMPLE WAY OF LIFE AND THE UNPRETENDING VIRTUES THAT ARE ESSENTIAL TO A WELL-ORDERED REPUBLIC.

This charge takes us directly to the problem of civic education and its compatibility with liberal education. Let us note at once that the American writers were convinced that the success of republican government requires the proper education of the

citizenry in morals and patriotism. A central theme of their essays is the importance of improving the heart as well as the head. Webster insists, in fact, that "the *virtues* of men are of more consequence to society than their *abilities*, and for this reason the *heart* should be cultivated with more assiduity than the *head*."⁴¹ One student of the period has suggested recently that the discourse of the Founders is "nearly silent about duties,"⁴² but this judgment fails to give sufficient weight to the educational writings of the period, which emphasize that the citizens of a republic must know their duties as well as their rights. Rush spoke for many when he observed:

The business of education has acquired a new complexion by the independence of our country. The form of government we have assumed has created a new class of duties to every American.⁴³

In reporting for the commissioners who were appointed to fix the site of the University of Virginia, Jefferson explains that the objects of primary education are to enable the citizen "to understand his duties to his neighbors and country" as well as "to know his rights."⁴⁴

What are the duties of republican citizenship, and what virtues are required to support us in the performance of these duties? Rush discusses this question in some detail. It is noteworthy that he treats the duties of men and women in separate essays. Men are to be prepared by education for public duties and women for duties of the home and family. Yet even female education must have a distinctively republican character:

The opinions and conduct of men are often regulated by the women in the most arduous enterprises of life, and their approbation is frequently the principal reward of the hero's dangers and the patriot's toils. Besides, the *first* impressions upon the minds of children are generally derived from the women. Of how much consequence, therefore, is it in a republic that they should think justly upon the great subjects of liberty and government!⁴⁵

According to Rush, the duty which young men owe to their country is second only to that which they owe to the Creator. Every citizen of a republic should "subdue and forget his own heart" and prefer country to family, friends, and property: "Let our pupil be taught that he does not belong to himself, but that he is public property."⁴⁶ This means specifically that while he must

love private life, "he must decline no station, however public or responsible it may be, when called to it by the suffrages of his fellow citizens."⁴⁷ Moreover, while he must cherish life itself and endeavor to acquire as many of its conveniences as possible by industry and economy, "he must be taught that this life 'is not his own' when the safety of his country requires it."⁴⁸ Other specific duties include: watching vigilantly after the affairs of the state, but in such a manner as not to defraud his creditors or neglect his family; loving popularity, but not above the dictates of judgment or the interests of his country; appealing only to the laws of the state in defending his character and punishing injuries; recognizing that neither the rank nor the antiquity of his ancestors can command respect without personal merit; avoiding neutrality in all questions that divide the state, but shunning the rage and acrimony of party spirit; loving his fellow creatures in all parts of the world, but cherishing with a more intense affection the citizens of his own state and of the United States; amassing wealth, but only to increase his power of contributing to the wants and demands of the state; and making study and business his principal pursuits in life, even though indulging occasionally in amusements.⁴⁹

Our other American writers may not have shared Rush's stern view of what the republican duties are or his high expectations regarding education's ability to inculcate them. They would have agreed with him, however, that the citizens of a well-ordered republic must receive a moral or civic education. But how is a civic education in the republican duties and virtues related to liberal education? The American writers did not claim that liberal education could itself do the work of civic education and supply the moral training that republican citizenship requires. Since moral education, or the cultivation of the heart, begins almost at birth, it must obviously be something different from liberal education, which provides instruction in literature and science. The great body of citizens will receive their moral education from the family, the churches, and the elementary schools, not from the institutions of higher learning. The American writers did maintain, however, that liberal education is fully compatible with republican civic education. A liberal education provides a rational grounding for the republican duties and virtues and thus serves to strengthen and extend them.

Let us take notice of two of the reasons why the American writers refrained from claiming that liberal education can replace

civic education or supply by itself the moral training that republican citizenship requires. First, morality has to do with the formation of character, or with the inculcation of habits of choosing the right things, and such training must predate in a young person any reasoned and critical understanding of why these habits are good. In speaking of the mode of education by which young people are prepared to subordinate themselves to the laws and to become good citizens of the republic, Rush writes:

I am satisfied that the most useful citizens have been formed from those youth who have never known or felt their own wills till they were one and twenty years of age, and I have often thought that society owes a great deal of its order and happiness to the deficiencies of parental government being supplied by those habits of obedience and subordination which are contracted at schools.⁵⁰

Second, civic education builds upon an unreasoned preference for one's own community, whereas liberal education leads us to prefer the general to the particular and the best to one's own. Both Rush and Webster caution against sending America's young people to foreign countries for an education, and their reasoning is instructive. Rush explains that the "principle of patriotism stands in need of the reinforcement of *prejudice*, and it is well known that our strongest prejudices in favor of our country are formed in the first one and twenty years of our lives."⁵¹ Webster concurs, adding that a man "should always form his habits and sentiments in the country where he is to reside for life."⁵²

The austere republicans had claimed that the diffusion of literature and science threatens republican virtue by promoting luxury and its attendant vices. The American writers responded, first of all, by denying that republics must cultivate an abstemious way of life. Republics should promote the happiness of their citizens; and a comfortable life, while perhaps not the whole of happiness, is a vital part of it. The progress and diffusion of knowledge brings a comfortable life within the reach of most citizens. Rush offers an early version of the promise of "a chicken in every pot":

Part of the effects of this universal diffusion of knowledge would probably be to produce turkies and poultry of all kinds on the tables of our farmers, not only on Sundays, but on every day of the week.⁵³

The American writers also denied that people become vicious when they seek to live comfortably by cultivating the arts and sciences. They pointed out that employment in the useful arts requires people to develop their intellects and to form good habits. Joel Barlow defends even the fine arts against the opinion of some that their encouragement "savors too much of luxury, and is unfavorable to republican principles."⁵⁴ The culture of the fine arts, in Barlow's view, is actually favorable to republican manners, principles and discipline. The fine arts improve morals and social intercourse by opening the mind to great ideas, inspiring liberal feelings, creating a harmony of temper, and stimulating industry. Moreover, "the encouragement of a taste for elegant luxuries discourages the relish for luxuries that are gross and sensual, debilitating to the body, and demoralizing to the mind."⁵⁵ Barlow acknowledges that the gross and sensual luxuries prevail in America, perhaps as the outgrowth of domestic affluence and civil liberty; and he recommends the cultivation of the fine arts as a way to check them without encroaching, as a direct application of governmental powers would do, on the liberty and affluence that give them birth.

CONCLUSION

We set out to consider whether or not liberal education and republican government can live together in harmony. Our examination of American writings on education of the Founding period has shown us one way to establish this harmony. It is time now to reflect in a general way upon this American solution and to see what we can learn from it. Let us keep in mind as we proceed that harmonizing liberal education and republicanism is both a theoretical problem and a practical problem. Proving them to be compatible in theory will not by itself ensure that they can get along together in practice. Republics must be persuaded to open their doors to liberal education, and the friends of liberal education must be persuaded to recognize the merits of republics. It might in fact be possible through persuasive speeches to work out a practical accommodation between liberal education and republicanism even if the theoretical obstacles to such an accommodation should seem very great.

The conspicuous durability of the American republic tends to support the broad claim of the American writers, as against Cato and Rousseau, that republics are not harmed but indeed are strengthened by the encouragement and wide dissemination of

literature and science. The specific arguments by which the American writers justified this claim are, however, open to question. As we saw, they met the charge that liberal education breeds aristocracy by emphasizing the benefits of the diffusion of knowledge. Diffusion would break the monopoly of the few and empower the people to know and defend their rights. The theoretical weakness in the argument for diffusion appears once it is acknowledged, as most of the American writers did, that men are by nature unequal in their intellectual abilities, so that only a few can be truly learned. This means that liberal education can only extend natural inequalities and that diffusion cannot eliminate them. Jefferson and others met this difficulty by insisting that the few who receive a liberal education will be "able to guard the sacred deposit of the rights and liberties of their fellow citizens."⁵⁶ Yet what will dispose the learned few to serve their fellow citizens and to safeguard their rights and liberties? We see that the argument for diffusion is questionable from a theoretical standpoint. It has proved quite effective, however, in overcoming popular suspicions of inequality and its consequences. Perhaps it would be closer to the truth simply to say that liberal education is the necessary endeavor to found an aristocracy within democratic mass society, but we must wonder how persuasive this will be to people who are naturally fearful and suspicious of the aristocratic tendencies of liberal education.

The American writers met the charge that philosophers are a useless and seditious class of men by emphasizing the usefulness of philosophical or scientific knowledge. It is clear, however, that they did not distinguish with sufficient care between experimental scientists, whose aim is control over nature, and philosophers in the strict sense, who do seek a kind of knowledge that is merely speculative and who would surely object to the suggestion that the worth of their knowledge must be measured by its utility. Moreover, the American writers did not recognize the extent to which philosophers question all established opinions, including the principles on which republics are founded. Their argument for utility is thus questionable from a theoretical standpoint, but it has likewise proved quite effective in overcoming popular suspicions about men who are potent in knowledge but idle and useless. It may be closer to the truth to say that a liberal education which culminates in philosophy is free from the bonds of utility and is not instrumental, except in a most oblique way, but again, we must wonder if such an admission will not discourage a

republic from opening its door to philosophy.

Finally, the American writers met the charge that liberal learning promotes antirepublican vices by maintaining that its true tendency is to strengthen morality and civic virtue. This argument was weakened, however, by their admission, first, that moral virtue has its origin outside of intellectual knowledge, so that "angels in understanding" may also be "devils in conduct," and, second, that true wisdom runs counter to those prejudices or preferences for one's own that civic morality and patriotism require. Despite this theoretical weakness, the American argument does serve to overcome the popular fear that liberal education will foster skeptical teachings and immoderate ways that are harmful to republics. Would this popular fear of the immoral consequences of liberal education not be intensified by an admission that liberal education leads young people to question the specific beliefs or prejudices on which moral virtue and patriotism depend?

I am suggesting that while the Founding generation's arguments on behalf of liberal education might be questionable from a strictly theoretical standpoint, they may still provide the best model for a speech that will justify liberal education before the citizens of a republic. There can be few doubts as to the persuasiveness of these arguments. Americans were remarkably open to liberal education at the Founding period and have remained so since that time. The Founding generation's case for liberal education must be examined with caution, lest one end up with stronger theory but weaker rhetoric.

It is not hard to anticipate the objections that some will now raise to this reconciling project. Let us grant — they will say — that liberal education is a beautiful or noble thing and that the speech which justifies it, though perhaps not altogether true, is nonetheless a beautiful or noble speech. Do you not harm republics and also liberal education itself by persuading the people to accept and support it unqualifiedly? Republics are harmed because liberal education can bring to perfection only a few of those who receive it. Many of the dabblers will turn out worse than if they had received no liberal instruction at all. Would we not do republics a greater service by warning them, as Rousseau did, of the dangers of liberal education, even while leaving open the possibility that learned individuals of the first rank might find an honorable place in their councils? An equally important objec-

tion to your reconciling project—they will continue—is that it harms liberal education. A true harmony between liberal education and republicanism is possible only if they are good for each other. You have shown at most that liberal education is good for republics; but like the American writers themselves, you have ignored completely the question of whether or not republicanism is good for liberal education. Republicanism is bad for liberal education, because a sustained education to human excellence requires a society where there is a clear order of rank or hierarchy between individuals. Such a society impresses upon us the sense of the vast difference between the high and the low, or the noble and the base, that we need if we are to master ourselves and strive for the highest goals. Such a society has a class that transmits the taste for intellectual pleasures along with hereditary fortune and leisure and holds the labors of the intellect in honor. Republics, by contrast, have no ruling class to support intellectual pleasures for their own sake. In a republic, everything is subordinated to the principle of utility, and there prevails a restless activity or permanent agitation that is unsuited to meditation and the disinterested search for truth. The citizens of a republic have a sort of instinctive distaste for what is ancient, and the men whom they see around them are all insignificant and very much alike. There is nothing to raise the eye above the here and now and to sustain a view of the highest things. Inevitably the principle of equality is extended from the political sphere to the soul itself, so that all of the human desires, and the ways of life attendant upon them, must be accorded an equal rank. If some young people should use their freedom to pursue a reflective life, then this is accidental to the spirit of republicanism and is no credit to that spirit.

From these formidable objections to our reconciling project, we can see that it is not enough to persuade the people that liberal education is good for republics. It is necessary also to persuade the friends of liberal education that republicanism is beneficial to their cause or at least is not greatly detrimental to it. Thus we need a second speech, which will justify republicanism before the friends of liberal education, to accompany our first speech, which was designed to justify liberal education before the citizens of a republic. The American writers on education provide us with little guidance for this second speech, inasmuch as they had no great fear that republicanism would pose a danger to liberal education.

The second speech would begin by reminding the friends of

liberal education that republics have been remarkably open and even deferential to their wishes. It would point out that the peaks of excellence in liberal learning have reached very high in republics, despite the obstacles and eroding currents that critics of republicanism have brought to our attention. The prospects are thus favorable for a harmonious relationship (our speech would tell them) unless you should jeopardize it by your own imprudent words and actions. Our speech would then try to teach the friends of liberal education to moderate their expectations from politics. It would grant that forms of government more congenial to liberal education can perhaps be imagined, but it would deny that these can be established in practice. So long as human nature remains what it is, a well-ordered republic will continue to be the regime most favorable to the interests of liberal education. Where the friends of liberal education have the good fortune to live in a republic, they must give it their loyal support and never be so foolish as to try to supplant it with government by the few. Moreover, they must not expect that a republic, or any other form of government for that matter, can be transformed into a perfectly rational society. Political communities are and will remain closed to the truth in some greater or lesser degree. At the foundation of even the most enlightened republic are opinions and prejudices that are widely believed but are of doubtful validity. The liberally educated person must respect the beliefs that support a republic and not try to shake them in the vain hope that the people at large can be made to philosophize. Our speech would next enjoin the friends of liberal education to be mindful of the tough moral demands that a healthy republic must place on its citizens for the sake of liberty. The citizens of a republic should have a keen sense of their duties and also the moral habits or virtues that will sustain them in the performance of these duties. As the American writers pointed out, moral training for republican citizenship requires a special kind of civic education whose ground is religious faith. Liberal education cannot itself do the job of civic education. At most it can only strengthen and extend those republican virtues that civic education has produced. The friends of liberal education must thus be willing to provide for civic education in the whole plan of instruction and must, of course, refrain from deeds that are inconsistent with the duties and virtues that republican citizenship requires. Finally, our speech would caution the friends of liberal education against opening their doors indiscriminately to all seekers. Not only dabblers, but many who probe deeply in

the liberal arts and sciences, turn out to be dangerous to republics and to liberal education itself. The most potent and most precious knowledge must insofar as possible be kept from those who lack the ability or the inclination to use it wisely. Yet since these precautions are seldom taken and are often unavailing (our speech to the friends of liberal education would conclude), you must stand ready to take the side of republicanism against uncivil or destructive forces that have their root in misguided theory.

NOTES

¹ From Mill's "Inaugural Address at St. Andrews," in *James and John Stuart Mill on Education*, ed. F. A. Cavenagh (Cambridge, 1931), p. 132. No one has brought out more clearly than Leo Strauss the many-sidedness of the subject of education and its centrality to political philosophy. Anyone familiar with Strauss's thought and writings will see at once that my essay owes far more to Strauss than footnotes can convey, especially to his chapters on liberal education in *Liberalism Ancient and Modern* (New York, 1968), pp. 3-25. Also important to my essay at a formative stage was Eva Brann's *Paradoxes of Education in a Republic* (Chicago, 1979). From this book I learned, among other things, that the writings on education by the American Founding generation are a very rich resource for exploring the relationship of liberal education and republicanism.

² Quoted from an unpublished and undated essay, in mimeographed form, entitled "Liberal Education and the Common Man."

³ Alan E. Astin, *Cato the Censor* (Oxford, 1978), p. 175.

⁴ The quotations here are from Plutarch, *The Lives of the Noble Grecians and Romans*, trans. John Dryden (New York: Modern Library, n.d.), pp. 428-29.

⁵ Jean-Jacques Rousseau, "Discourse on the Arts and Sciences," in *The First and Second Discourses*, ed. Roger D. Masters (New York: St. Martin's Press, 1964), p. 45.

⁶ *Ibid.* The philosopher quoted here by Rousseau is apparently Seneca.

⁷ *Ibid.*, p. 50.

⁸ *Ibid.*, p. 36.

⁹ Alexis de Tocqueville, *Democracy in America*, ed. Phillips Bradley (New York: Vintage Books, 1959), 2:244.

¹⁰ In G. Brown Goode, "The Origin of the National Scientific and Educational Institutions of the United States," *Papers of the American Historical Association*, 4 (April 1890), part 2, p. 82. Rush's address is reprinted here as Appendix B.

¹¹ In Frederick Rudolph, ed., *Essays on Education in the Early Republic: Benjamin Rush, Noah Webster, Robert Coram, Simeon Doggett, Samuel Harrison Smith, Amable-Louis-Rose Du Courteuil, Samuel Knox* (Cambridge, 1965), pp. 63-64.

¹² *Ibid.*, p. 127.

¹³ See Max Farrand, ed., *The Records of the Federal Convention of 1787* (New Haven, 1966), 2:320, 325 (August 18); and 616, 620 (September 14).

¹⁴ *Essays on Education in the Early Republic*, p. 3.

¹⁵ *Ibid.*, p. 65. Webster is quoting directly from Montesquieu.

¹⁶ *Ibid.*, p. 3.

¹⁷ *Ibid.*, pp. 155-56.

¹⁸ In Roy J. Honeywell, *The Educational Work of Thomas Jefferson* (Cambridge, 1931), p. 199. Most of Jefferson's writings on education are reprinted in the Appendices to this volume.

¹⁹ *Essays on Education in the Early Republic*, p. 3.

²⁰ *Educational Work of Thomas Jefferson*, p. 251.

²¹ Samuel Harrison Smith in *Essays on Education in the Early Republic*, pp. 188-89.

- ²² *Ibid.*, p. 219.
- ²³ *Ibid.*, p. 309.
- ²⁴ See *ibid.*
- ²⁵ *Ibid.*, p. 130.
- ²⁶ *Educational Work of Thomas Jefferson*, pp. 199-200.
- ²⁷ *Ibid.*, p. 223.
- ²⁸ *Ibid.*, p. 224.
- ²⁹ *Ibid.*, p. 289.
- ³⁰ *Ibid.*, p. 160.
- ³¹ See "A Proposal for Promoting Useful Knowledge Among the British Plantations in America," in *Educational Views of Benjamin Franklin*, ed. Thomas Woody (New York, 1931), pp. 58-62.
- ³² *The Lost World of Thomas Jefferson* (Boston, 1948), p. 11.
- ³³ *Educational Work of Thomas Jefferson*, p. 225.
- ³⁴ *Essays on Education in the Early Republic*, p. 178.
- ³⁵ *Ibid.*
- ³⁶ *Ibid.*
- ³⁷ *Ibid.*, p. 179.
- ³⁸ *Ibid.*, p. 151.
- ³⁹ *Ibid.*
- ⁴⁰ See *ibid.*, pp. 171-76.
- ⁴¹ *Ibid.*, p. 67.
- ⁴² Robert A. Goldwin, "Rights Versus Duties: No Contest," in *Ethics in Hard Times*, ed. Arthur L. Caplan and Daniel Callahan (New York, 1981), p. 129.
- ⁴³ *Ibid.*, p. 9. Rush takes note of the regime change in another essay when he insists that education should now be conducted "upon principles very different from what it is in Great Britain and in some respects different from what it was when we were a part of a monarchical empire" (*ibid.*, p. 27).
- ⁴⁴ See *Educational Work of Thomas Jefferson*, pp. 249-50.
- ⁴⁵ *Essays on Education in the Early Republic*, p. 22.
- ⁴⁶ *Ibid.*, pp. 13-14.
- ⁴⁷ *Ibid.*, p. 14.
- ⁴⁸ *Ibid.*, pp. 14-15.
- ⁴⁹ See *ibid.*, p. 14.
- ⁵⁰ *Ibid.*, p. 16.
- ⁵¹ *Ibid.*, p. 9.
- ⁵² *Ibid.*, pp. 73-74.
- ⁵³ *Ibid.*, p. 8.
- ⁵⁴ Goode, "The Origin of the National Scientific and Educational Institutions in the United States," p. 90. Barlow's "Prospectus of a National Institution, to be Established in the United States" (1806) is reprinted here as Appendix C.
- ⁵⁵ *Ibid.*, pp. 90-91.
- ⁵⁶ *Educational Work of Thomas Jefferson*, p. 199.